UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,303	08/26/2003	Kiyotaka Ohara	116528	3669

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EXAMINER
POPOVICI, DOV

ART UNIT	PAPER NUMBER
2625	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 August 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 August 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

DOV POPOVICI
PRIMARY PATENT EXAMINER

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *8/9/2005 & 10/6/2003*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Drawings

Figure 14 should be designated by a legend such as --Prior Art-- because only

that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in

compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

abandonment of the application. The replacement sheet(s) should be labeled

"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

Claim 23 is rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

Claim 23 is claiming a program per se. Claim 23 is directed to non-statutory

functional descriptive material. "Computer programs claimed as computer listings per

se, i.e., the descriptions or expressions of the programs, are not physical "things." They

are neither computer components nor statutory processes, as they are not "acts" being

performed. Such claimed computer programs do not define any structural and functional

interrelationships between the computer program and other claimed elements of a

computer which permit the computer program's functionality to be realized. In contrast,

a claimed computer-readable medium encoded with a computer program is a computer

element which defines structural and functional interrelationships between the computer

program and the rest of the computer which permit the computer program's functionality

to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at

1035. " " Since a computer program is merely a set of instructions capable of being

executed by a computer, the computer program itself is not a process and USPTO

personnel should treat a claim for a computer program, without the computer-readable

medium needed to realize the computer program's functionality, as nonstatutory

functional descriptive material" (see Interim Guidelines for Examination of Patent

Applications for Patent Subject Matter Eligibility).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by Sasaki (US 5,228,118) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sasaki (US 5,228,118) and Watanabe (US 6,611,350).

Claims 1-10, 15-24 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (US 5,228,118) and Watanabe (US 6,611,350).

As to claim 1, Sasaki discloses a method of connecting a terminal device (data processor device) to a target printer (printing device) (see figures 1, 2, and 7) to be used on a network, the method comprising the steps of: receiving from an external device information regarding the interpreter or interpreters in the printer; and determining a printer driver for connecting the terminal device to the target printer based on the information received. Although receiving from an external device information regarding the interpreter or interpreters in the printer and determining a printer driver for connecting the terminal device to the target printer based on the information received could be interpreted as receiving from an external device information regarding the printing protocol and determining a printing protocol for connecting the terminal device to the target printer based on the information received, since a printing protocol is defined as a set of rules or standards designed to enable computers to connect with one another and to exchange information with as little error as possible (see Microsoft Press, Computer Dictionary, 2nd edition), while receiving information regarding the

interpreter or interpreters available in the printer and selecting a printer driver

compatible with the interpreter could read on: determining a printing protocol for

connecting the terminal device to the target printer based on the information received.

In the alternative, since Sasaki does not specifically mentions receiving from an

external device information regarding "printing protocols"; and determining "a printing

protocol" for connecting the terminal device to the target printer based on the

information received,

Watanabe is cited to teach and show a method of connecting a terminal device to

a target printer (see figures 1-4) to be used on a network, the method comprising the

steps of: receiving from an external device (either: server 1 or printers 2, 3) information

regarding printing protocols; and notifying the state information of the printers acquired

by the printer state information acquiring section to the personal computer (see col. 2

lines 55-59).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to have modified Sasaki wherein: the receiving and determining

steps includes receiving information regarding printing protocols and determining a

printing protocol for connecting the terminal to the printer based on the information

received.

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to have modified Sasaki by the teaching of Watanabe for the

reasons taught by Watanabe at column 1, lines 20-59, and so that the terminal device

or host computer can communicate with the selected or target printer through a

compatible or the same printing protocol, therefore, it enables the computers and

printers to connect with one another and to exchange information with as little error as

possible and provide compatibility among the network devices, hence, reducing errors,

and increasing the network or system speed and efficiency.

As to claim 2, Sasaki as modified teaches the step of sending a request for the

information regarding printing protocols from the terminal device to the external device

on the network before the receiving step, wherein the information regarding printing

protocols is transmitted from the external device to the terminal device (see figure 3 and

col. 2, lines 43-59, col. 4, 40-65, and col. 5, lines 15-35).

As to claim 3, Sasaki as modified teaches wherein the external device is one of a

server (1) and the target printer (2 or 3).

As to claim 5, Sasaki as modified teaches wherein the external device is one of

printers on the network (see Sasaki figures 2 and 7 and see Watanabe figure 1).

As to claim 6, Sasaki as modified teaches wherein the external device is a server

(1) on the network (see Watanabe figure 1).

As to claims 4, 7 and 8, Sasaki as modified teaches inquiry signal is transmitted

to the printers in a broadcasting fashion. However, Sasaki does not specifically specify

wherein the information regarding printing protocols is broadcasted by the external

device on the network and wherein the external device broadcasts the information

regarding printing protocols when the external device is switched on and wherein the external device broadcasts the information regarding printing protocols at predetermined time intervals.

The examiner is taking "official notice" that broadcasting as taught by Sasaki by an external device when the device is switched on and/or at predetermined time intervals is well known in the network technology.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Sasaki as modified wherein the information regarding printing protocols is broadcasted by the external device on the network and wherein the external device broadcasts the information regarding printing protocols when the external device is switched on and wherein the external device broadcasts the information regarding printing protocols at predetermined time intervals.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Sasaki as modified so that the external device (either the server or the printer) can broadcast either when the device is switched on or at predetermined time intervals, information regarding printing protocols to the client computers on the network, so as to provide the printing protocols information to the host computer for providing compatibility as taught by Sasaki see abstract and col. 11, lines 15-20 and for the reasons taught by Watanabe at column 1, lines 20-59, and so that the terminal device or host computer can communicate with the selected or target printer through a compatible or the same printing protocol, therefore, it enables the

computers/printers to connect with one another and to exchange information with as little error as possible and provide compatibility among the network, hence, reducing errors, and increasing network or system speed and efficiency.

As to claim 9, Sasaki as modified teaches the step of connecting from the terminal device to the target printer in accordance with the printing protocol determined by the determining step.

As to claim 10, Sasaki as modified teaches wherein the determining step includes comparing printing protocols which the terminal device supports with a printing protocol contained in the received information, wherein the receiving step is repeated until the printing protocol contained in the received information coincides with one of the printing protocols which the terminal device supports, wherein the printing protocol which firstly identified to be consistent with the one of the printing protocols which the terminal device supports is used to connect the terminal device to the target printer.

As to claim 15, Sasaki as modified teaches the steps of: storing the printing protocol for connecting to the target printer determined in the determining step and information for locating the target printer in a memory (see Watanabe figure 2, printer information table 18 in printer information storing section 14 of server 1); and in advance determining whether the target printer has already been stored in the memory; wherein if the target printer has been stored in the memory, said connecting step is performed without performing said receiving step and said determining step (see Watanabe figure 3).

As to claim 16, Sasaki as modified teaches wherein the information for locating the target printer includes at least one of an IP address of the target printer and a name of the target printer (see Watanabe figure 4 shows the printer IP address see col. 5, lines 1-10).

As to claims 17, 20, 21, 22, 23, and 27, applicant is directed to the remarks and discussion made in claims 1-2 above.

As to claim 18, applicant is directed to the remarks and discussion made in claims 3 and 6 above.

As to claim 19, applicant is directed to the remarks and discussion made in claims 3 and 5 above.

As to claim 24, applicant is directed to the remarks and discussion made in claims 1-2, 4, and 7-8 above.

As to claim 26, applicant is directed to the remarks and discussion made in claims 1-2 and 10 above.

Claims 11-13 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (US 5,228,118) and Watanabe (US 6,611,350) as applied to claim 1 above, and further in view of Davidson Jr. et al. (US 5,636,333).

As to claims 11-13, Sasaki does not teach the step of defining priority levels regarding printing protocols before the determining step, wherein said determining step includes comparing the printing protocols which the terminal device supports with printing protocols contained in the received information to determine if there are matches, and selecting one printing protocol having a highest priority level from among said matches, wherein said defining step includes defining said priority levels of printing protocols which the terminal device supports at the terminal device, and wherein said defining step includes defining said priority levels which the target printer supports at the target printer.

Davidson Jr. et al. teaches the step of defining priority levels regarding printing protocols (see abstract) before the determining step, wherein said determining step includes comparing the printing protocols which the terminal device supports with printing protocols contained in the received information to determine if there are matches, and selecting one printing protocol having a highest priority level from among said matches, wherein said defining step includes defining said priority levels of printing protocols which the terminal device supports at the terminal device, and wherein said defining step includes defining said priority levels which the target printer supports at the target printer (see abstract and see figures 2-5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Sasaki as modified by the step of defining priority levels regarding printing protocols before the determining step, wherein said

determining step includes comparing the printing protocols which the terminal device

supports with printing protocols contained in the received information to determine if

there are matches, and selecting one printing protocol having a highest priority level

from among said matches, wherein said defining step includes defining said priority

levels of printing protocols which the terminal device supports at the terminal device,

and wherein said defining step includes defining said priority levels which the target

printer supports at the target printer.

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to have modified Sasaki as modified by the teaching of Davidson,

Jr. et al. for communicating priority information as taught by Davidson Jr. et al. see

column 1, lines 7-60.

As to claim 25, applicant is directed to the remarks and discussion made in

claims 1-2 and 11-13 above.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Sasaki (US 5,228,118) and Watanabe (US 6,611,350) as applied to claims 1-2

above, and further in view of Applicant Admitted Prior Art at page 2, line 8 to page

3, line 2, paragraphs 0006-0007.

As to claim 14, Sasaki as modified does not teach wherein said request is sent

according to a Simple Network Management Protocol, and wherein the information

regarding printing protocols includes information managed according to a Management Information Base.

Applicant Admitted Prior Art at page 2, line 8 to page 3, line 2, paragraphs 0006-0007, discloses a network wherein said request is sent according to a Simple Network Management Protocol, and wherein the information regarding printing protocols includes information managed according to a Management Information Base (see Applicant Admitted Prior Art at page 2, line 8 to page 3, line 2, paragraphs 0006-0007).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Sasaki's network as modified wherein said request is sent according to a Simple Network Management Protocol, and wherein the information regarding printing protocols includes information managed according to a Management Information Base.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Sasaki as modified by the teaching of Applicant Admitted Prior Art disclosed at page 2, line 8 to page 3, line 2, paragraphs 0006-0007, for the reasons taught by Applicant Admitted Prior Art disclosed at page 2, line 8 to page 3, line 2, paragraphs 0006-0007, mainly because SNMP is well known for its versatility see Applicant Admitted Prior Art at page 2, paragraph 0006 and for recognizing the network environment and managing the network.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kageyama et al. (US 5,303,336) teaches a server converting different printing protocols into a common printing protocol.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dov Popovici whose telephone number is 571-272-4083. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dov Popovici
Primary Examiner
Art Unit 2625

DOV POPOVICI
PRIMARY PATENT EXAMINER